

Q.9.	Describe with neat sketch how different atmospheric conditions give rise to six different kind of plumes.	8	CO1
Q.10.	Explain principle and functions of any four air pollution control equipment which are used to control particulate matter generated from the industries with well labeled diagram. Or	8	CO1
Q.11.	What is marine pollution ? How does oil spill affect on marine ecosystem? Explain any four methods which are used for controlling oil spills.	8	CO2
SECTION-C (40 Marks)			
Note : Q.12 is compulsory Student may attempt any one question i.e either Q.13 or Q.14			
Q.12.	All meteorological phenomenon are a result of interaction of the elemental properties of an atmosphere , heat, pressure, wind and moisture. Describe various meteorological factor that influence air pollution of particular region.	20	CO1
Q.13	Describe the various units of Primary, Secondary and Tertiary treatment of Effluent Treatment Plant with the help of well labeled diagram to treat waste water. Or	20	CO2
Q.14.	Water quality refers to the chemical, physical and biological characteristics of water, it is a measure of the condition of water relative to the requirements of one or more biotic species and or to any human need or purpose. Describe all physical, chemical and biological parameters of water quality?	20	CO2

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**End Semester Examination, December 2018****Course: Environment and Development****Semester: IV****Programme: M. Plan****Time: 03 hrs.****Max. Marks: 100****Instructions: Please attempt all questions from Section “A”, Section “B” and Section “C”****SECTION A : 20 Marks**

S. No.		Marks	CO
Q 1	Explain indoor air pollution and out door air pollution. What are the impact of particulate matter and CO on human being?	4	CO1
Q.2.	Differentiate between grab sampling and composite sampling methods used for water or waste water sampling. (3 + 3 = 6 Marks)	4	CO2
Q.3. W	What are the objectives of ambient air quality monitoring? Explain working principle of Respirbale dust sampler which is used for the monitoring of ambient air quality.	4	CO1
Q.4.	b) Define the followings : i) Mixing height ii) ELR	2 x 2 = 4	CO1
Q.5.	What is the importance of ozone layer ? Explain how it is depleting? What are the harmful effects of ozone layer depletion?	4	CO1

SECTION B : 40 Marks**Note : Student are required to attempt four questions from Section “A” however internal choice is given among the Q.10. and Q.11. Student may attempt any one question i.e Q.10. or Q.11.**

Q.6.	Water quality refers to the chemical, physical and biological characteristics of water, it is a measure of the condition of water relative to the requirements of one or more biotic species and or to any human need or purpose. Explain physical and chemical and parameters of water quality.	8	CO2
Q.7.	What are the different types of non renewable and renewable sources of energy which are used for generating electricity in India? Explain working principle of electivity generation by tidal energy and geothermal energy with schematic diagram.	8	CO4
Q.8.	To maintain hygienic conditions in the rural and urban environment, there is an urgent need for effective solid waste management. Describe the various element of municipal solid waste management.	8	CO3
Q.9.	What are the sources of thermal pollution? Explain any three methods which are used for controlling thermal pollution.	8	CO2
Q.10.	What are the sources of oil spill ? Explain any three methods which are used for	8	CO2

	controlling oil spills.		
	Or		
Q.11.	Describe various principle and functions of air pollution control equipment which are used to control particulate matter .	8	CO1
SECTION-C (40 Marks)			
Note : Q.12 is compulsory. Student may attempt any one question i.e either Q.13 or Q.14			
Q.12.	All meteorological phenomenon are a result of interaction of the elemental properties of an atmosphere , heat, pressure, wind and moisture. Describe various meteorological factor that influence air pollution of particular region.	20	CO1
Q.13.	Describe the various units of Primary, Secondary and Tertiary treatment of Effluent Treatment Plant with the help of well labeled diagram to treat waste water.	20	CO2
	Or		
Q.14.	When effluents / waste water is discharged into a water bodies i.e. river, lake and sea, a number of process occur like physical, chemical and biological characteristics of water change which causes loss of organism and deterioration of water quality. Describe the various units of Primary, Secondary and Tertiary treatment of Effluent Treatment Plant with the help of well labeled diagram to treat waste water.	20	CO2